Brit. J. Psychiat. (1975), 127, 535–9

Subcultural Mental Handicap

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Summary. Some conceptual problems in relation to the interaction of genetic influence and social disadvantagement are discussed, and some of the results of a study of 144 families with mentally handicapped children reported. The work of Heber and his associates in Milwaukee is briefly reviewed, and the Edinburgh data discussed in relation to the study in Aberdeen by Birch *et al.* (1970). Possible strategies for intervention are considered.

Introduction

The concept of subcultural handicap appears to have been introduced by E. O. Lewis (1933). He classified cases of mental deficiency into the pathological and the subcultural types, the latter showing no recognized pathogenesis but representing an extreme variant of the normal distribution of mental endowment. Penrose studied a large group of defectives in institutions and found he could divide the population into two groups which resembled Lewis's subcultural and pathological groups in many respects (Penrose, 1949). Stein and Susser (1962) recognized two types of mental deficiency: those with presumptive brain damage and those who appear to be without brain damage. The first type is distributed evenly between the different social classes, whereas the second type is found only amongst families in Social Class V (G.R.O. classification). They argued that this second type is a 'cultural' syndrome of mental retardation; it accounted for 75 per cent of all the educationally subnormal.

Hospital surveys have produced some contradictory results. Berg and Kirman (1959) found evidence of aetiological (i.e. pathological) factors in 36·5 per cent of cases, probable aetiological factors in 32·5 per cent, and no factors at all in 31 per cent. This last group would be considered by the present authors to include a large proportion of subcultural cases. O'Connor and Tizard (1954) studied a 5 per cent sample from twelve hospitals in the London area and found the average IQ (based on Raven's Matrices Raw Scores) to be approximately 74 for men and 71 for women.

A survey of the whole population of a hospital carried out in 1972 revealed 51 mongols, 496 with pathological signs and 108 subjects with neither mongolism nor pathological signs (Zealley *et al.*, 1975). We would suspect that the majority of cases should be classified as subcultural handicap. It has been calculated that 2 per cent of the American population have an IQ of more than two standard deviations below the mean, i.e. IQ <70 (Stevens and Heber, 1964). But most authorities accept for planning purposes an administrative prevalence (that is, the number of subjects who will need services) of 3 per 1,000. It is this gap between the administrative prevalence and the postulated prevalence of IQ <70 which makes an explanation based simply on polygenic inheritance unacceptable as a working hypothesis.

Sociologically orientated studies such as that sponsored by the National Children's Bureau (Wedge and Prosser, 1973) emphasize the relationship between social disadvantagement and mental handicap. But social disadvantagement is so often compounded by the parents' social incompetence, in turn related to the low IQ of so many parents of subcultural children. Heber and Garber (1971) found that mother's IQ was the single most important predictor of mental handicap in the children of slum families in Milwaukee. They noted that not all slum families produced children needing special education. It seemed to be the combination of

https://doi.org/10.1192/bjp.127.6.535 Published online by Cambridge University Press

living in the slum and having a mother of IQ less than 80.

We would therefore offer this provisional definition of subcultural handicap:

'Subcultural Handicap is a limitation of intelligence based partly on polygenic inheritance but compounded by severe social and educational disadvantagement so that the majority of these subjects require services (educational, social work or medical) at some stage in their lives.'

Some Data from an Edinburgh Study

This study considered all children aged 4–8 years in Edinburgh and West Lothian where the child was in day care, hospital care, going to a special school or identified as needing special education.

There were 144 families interviewed by the research workers, who employed a semi-structured interview technique. Much of the data related to parents' attitude and experience, but there was independent information on the child's placement or recommended placement and on the type of housing. As expected, social class was a prominent variable. When parents were asked if they regarded the index child as mentally handicapped, 50 per cent of Social Class IV and V parents said 'No' or 'Don't know'. This applied to 21 per cent of Social Class I and II families. Table I examines family size by ordinal position of index child; only children were classified as 'oldest' and there were 14 'only' children in this category. The results indicate that one-third of the children were middle children.

Table II looks at parents' coping ability as judged by the interviewers in relation to family size. Originally there were four categories: not well with stress, not well without stress, well with stress and well without stress. Later we decided that we should compare the fourth category with the other three combined.

Table III looks at mothers' family size plans in relation to the presence of this mentally handicapped index child. This question was addressed to mothers rather than to both parents, and the results were analysed against present family size.

Mother's relationship to child was assessed by her observed behaviour toward the child: 'protective' meant in effect over-protective and implied some degree of exclusion of other family members from the focus of mother's attention; 'ambivalent/rejecting' was often based on mother's own reported feelings about the child, while 'accepting' was initially conceptualized as warm tolerance. Later, accepting was thought of more as treating this child as no different from the others. Parents were also asked whether they regarded this child as mentally handicapped in relation to other children of the same age. Table IV analyses mothers' attitudes by parents' assessment of degree of handicap.

Table I
Ordinal position of index child by family size

Family size	Oldest	Youngest	Middle	Total
1–3 ..	30	42	18	90
4 or more ..	3	24	27	54
Total ..	33	66	45	144

$p < \cdot 01$; $\chi^2 = 21 \cdot 12$ (2 d.f.)

Table II
Interviewer's assessment of parents' ability to cope by family size

No. of children	Does not cope well	Copes well	Total
1–3	66	24	90
4 or more	25	29	54
Totals	91	53	144

$p < \cdot 01$; $\chi^2 = 9 \cdot 476$ (1 d.f.)

Table III
Mother's plans for family size by present size of family

No. of children	No effect	No more children	Total
1–3	57	33	90
4 or more	44	10	54
Total	101	43	144

$p < 0 \cdot 05$; $\chi^2 = 4 \cdot 476$ (1 d.f.)

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TABLE IV
Mother's relationship to child by parents' assessment of degree of handicap

Degree of handicap	Mothers' attitudes			
	Protective	Ambivalent/ Accepting	Accepting	Totals
No handicap/not sure	11	14	36	61
Some m.h.	8	14	37	59
Severe m.h.	11	7	6	24
Totals	30	35	79	144

$p < \cdot 01; \chi^2 = 13 \cdot 97$ (4 d.f.)

Table V analyses mothers' plans for family size by parents' assessment of degree of mental handicap in the child.

When the degree of handicap as assessed by the parents was analysed by the ordinal position of the index child, it appeared that 42 per cent of severely handicapped children were oldest children and 89 per cent of middle children were assessed by their parents as not handicapped (or not sure).

The parents were then asked when the index child first used words apart from 'mama' and 'dada'. The results are analysed in Table VI against social class.

The factor of whether the index child had a mentally handicapped sibling, as defined by allocation for special education or day care, was next examined in relation to degree of handicap.

These distributions seem rather noteworthy: multiple incidence occurs where the index child is regarded as mildly handicapped, where the index child is a middle child, and in social classes IV and V. These findings confirm those of Birch *et al.* in Aberdeen.

One last aspect of the Edinburgh study justifies a reference: the age at which parents stated that they had been told the child was handicapped. Originally we thought of several

TABLE V
Mothers' plans for family size by parents' assessment of degree of handicap

Degree of handicap	Plans for family size			
	Nil effect	No more children	Other	Total
Not sure/no handicap	48	8	5	61
Some m.h. ..	33	21	5	59
Severe m.h.	6	14	4	24
Totals ..	87	43	14	144

$p < \cdot 01; \chi^2 = 22 \cdot 87$ (4 d.f.)

TABLE VI
Social class by age of child when words first uttered

Age	I–II	III	IV–V	Total
<3 yrs ..	16	38	26	80
Later or not at all ..	8	17	39	64
Totals ..	24	55	65	144

$p < 0 \cdot 01; \chi^2 = 11 \cdot 651$ (2 d.f.)

TABLE VII
Presence of mentally handicapped sibling by degree of handicap in index child

	No handicap/ Not sure	Some m.h.	Severe m.h.	Total
No ..	44	55	24	123
Yes ..	17	4	0	21
Totals ..	61	59	24	144

$p < \cdot 01; X^2 = 15 \cdot 62$ (2 d.f.)

TABLE VIII
Presence of sibling by ordinal position if index child

	Oldest	Youngest	Other	Totals
No ..	32	59	32	123
Yes ..	1	7	13	21
Totals ..	33	66	45	144

$p < \cdot 01; \chi^2 = 11 \cdot 77$ (2 d.f.)

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categories, but later we revised these to two: 0–3 years, and later or never. Table X analyses this age of telling by social class and Table XI by mothers' plans for family size.

The Milwaukee Studies

For some years Heber and his associates have been studying slum families from a residential sector of Milwaukee. They found that the variable of maternal intelligence was the best single predictor of the level of intellectual development in the offspring. Mothers with IQ less than 80 comprised less than half the total group of mothers but accounted for almost 80 per cent of children with IQ less than 80.

Heber and Garber (1971) also reported that the IQ of children of mothers with IQ below 80 show a progressive decline with age.

Table IX
Presence of sibling by social class

	I–II	III	IV–V	Total
No ..	24	48	51	123
Yes ..	0	7	14	21
Total ..	24	55	65	144

$p < 0{\cdot}05; \chi^2 = 6{\cdot}774$ (2 d.f.)

Table X
Social class by age when parents told of handicap

	I–II	III	IV–V	Totals
<3 years ..	18	39	36	93
Later/never	6	16	29	51
Totals ..	24	55	65	144

$p < {\cdot}02; \chi^2 = 8{\cdot}834$ (2 d.f.)

Table XI
Mothers' plans for family size by age when parents told of handicap

	No effect	No more children	Other	Totals
<3 yrs ..	46	36	11	93
Late/never ..	41	7	3	51
Totals ..	87	43	14	144

$p < {\cdot}01; \chi^2 = 13{\cdot}30$ (2 d.f.)

The authors go on to state that the excess prevalence of mental retardation appears to relate to retarded parents living in the slum area rather than the slum itself. Heber and his associates have started an educational programme for twenty families from this slum area with mothers with IQ less than 80 and the youngest child less than six months old. On randomized allocation a further twenty families are getting standard welfare care. The programme has been going over four years and the IQ of the experimental group give a mean of 122, while that of the control group is 96. Even this latter figure is perhaps better than expected and suggests that the control children are perhaps benefiting simply from being involved in the study.

Discussion

Wedge and Prosser (1973) define disadvantagement in terms of family composition (i.e. one parent families, low income, poor housing). They found further evidence of family disorganization: one in nine of disadvantaged children had been in care before the age of eleven years, one in ten had a father who had been off work for a whole year prior to the interview, and one in fourteen were receiving or waiting for special education. As Burt said many years ago (1937), educational backwardness is associated with poverty.

Birch *et al.* (1970) surveyed all mentally handicapped children in Aberdeen aged 8–10 years and collected data about their families. They showed that within classes IV and V there are certain family conditions associated with a greater risk for mental handicap in the children: five children or more, inter-war tenement, person/room ratio of two or more, family disorganization and poverty.

In Edinburgh we found no 'multiple incidence' families in social classes I and II—two-thirds were in classes IV and V. In Aberdeen, Birch *et al.* found multiple incidence only in social classes IV and V. They also found that for mildly mentally handicapped subjects the percentage of their siblings who were mentally handicapped was 12 times that of the comparison population (social classes IV and V).

Some other attitudinal factors were identified

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in the Edinburgh study: parents who denied that the child was handicapped (or were not sure) were much more likely to have another mentally handicapped child; were more likely to come from classes IV and V; and were more likely to be accepting in attitude (that is, they treated the index child as they did the others). Mothers with mentally handicapped children they did not regard as handicapped (or were not sure) were more likely to have larger families, with the index child as a 'middle child', and were also more likely to say that the advent of the index child had had no effect on their plans for family size.

By contrast, parents who regarded their child as severely handicapped (the majority of class I and II parents) tended to have restricted their family size plans, to have been told before the age of three years of the child's handicap, and to have (for the mother) a protective attitude to the index child. If we may attempt to interpret the findings, it does seem, as Stein and Susser (1962) suggested, that subcultural handicap is restricted to classes IV and V. It seems that there is almost a fatalistic acceptance of mental handicap, leading to its denial; these children are not regarded any different from the others, and this is logical if there is in fact another mentally handicapped child.

Strategies for Intervention

Wedge and Prosser (1973) have suggested that disadvantaged families require better incomes and better housing. As regards our 'subcultural families' in Edinburgh, this approach would be self-defeating because of the social incompetence of many of the parents.

Heber and Garber (1971) have concentrated on identifying families at risk (mothers' IQ and area of residence) and then introducing pre-school education for the child and further education for the mother. Their results seem to indicate that this massive 'injection' of education is effective, but the financial implications are considerable.

We think that early identification of families at risk, i.e. when the first child is selected for special education, should be the signal for sustained attempts to deliver effective family planning to these parents. One of the most striking findings in Aberdeen and Edinburgh has been that multiple incidence is associated with social classes IV and V, large families and 'mild' handicap. These families are making a disproportionate contribution to the 'pool' of mental handicap. If they had two children instead of five, the 'pool' would begin to dry up.

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(*Received 16 January 1975*)

https://doi.org/10.1192/bjp.127.6.535 Published online by Cambridge University Press